Geology Minerals and Mining in Nova Scotia

Nova Scotia Department of Natural Resources
Mineral Resources Branch
Information Series ME 1, 1976

Table of Contents

- Introduction
- Some Interesting Geological Features to be Seen in Nova Scotia
- Mineral Collecting Localities in Nova Scotia
- Geological History
- Methods of Formation of Some Major Commodities of Nova Scotia
- Gold Production in Nova Scotia
- Coal Production in Nova Scotia (to 1975)
- Nova Scotia Commodity Production Totals by Area
- Total Production of Minerals in Nova Scotia (to 1975)
- General Information
- References

Back to Top

Introduction

This publication was designed to give a very basic account of mining and geology in Nova Scotia. It proved difficult to capsulize and summarize the vast amount of information that we thought should be in a publication of this type. However, it is felt that the information given here will be of use not only to students and people in the earth sciences, but it will be of interest to tourists travelling in Nova Scotia.

The information contained in this pamphlet was derived from various sources, most of which are listed under "References."

It must be noted that there are restrictions on the collecting of mineral and fossil specimens in Nova Scotia. Many areas of the province are held under mineral licenses and it is illegal for outsiders to take minerals from these areas without permission. Information in this regard may be obtained from the Registrar at the Nova Scotia Department of Mines. Information on fossil collecting can be obtained from the Director, Nova Scotia Museum.

The following warning must be adhered to. Extensive care must be taken by anyone exploring or looking at the old mining areas in the province. Many old shafts are open, and deep, and these shafts and tunnels are in varying stages of instability. Also old mining pits, trenches and quarries are considered dangerous because of loose rocks, and water seepage which indicates uncertain depths. The government cannot be held responsible for personal injury or loss.

This pamphlet was compiled by Jean M. Richardson and Diane J. Gregory.

106-05084/

Honourable William Gillis,
Minister

John C. Smith,
Deputy Minister

F. S. Shea, Director,
Mineral Resources and Geological Services

Back to Top

Some Interesting Geological Features to Be Seen in Nova Scotia

Back to Top
Back to Top

Mineral Collecting Localities in Nova Scotia

No.	Location	Minerals
Cumberland County		
1	Amherst	various coloured gypsum, anhydrite
2	Nappan	banded alabastine, dolomite, gypsum
3	Swans Creek	zeolites, calcite, gypsum
4	Advocate Harbour	copper
5a	Cape d'Or	native copper, zeolites, obsidian, malachite, chalcedony
5b	Horseshoe Cove	zeolites, calcite crystals, red and yellow jasper
5c	Isle Haute	zeolites
6	Spencer Island	ribbon jasper, quartz crystals, specularite crystals
7	West Bay	selenite, coral gypsum, quartz crystals
8	Partridge Island	zeolites, amethyst, agate, jasper
9	Wasson Bluff	zeolites, dog-tooth spar calcite
10	Two Islands	zeolites, heliotrope, moss agate
11	McKay Head	zeolites
Colchester County		
12	Pinnacle Island	zeolites
13	Five Islands/East River	zeolites, heliotrope, moss agate
14	Smithfield	malachite, azurite
15	Gays River	fluorite, marcasite
Hants County		
16	West Gore	valentinite, kermesite
17	Rawdon	valentinite, stibnite
18	Tennycape	dog-tooth spar calcite
19a	Walton River	dog-tooth spar calcite
19b	Walton	marcasite, malachite, azurite
20	Cheverie	calcite, fluorite

21	Brockville	carnelian
22	Windsor	selenite, howlite, ulexite

Kings County

23	Avonport	dog-tooth spar calcite, smoky quartz crystals
24a	Black Rock	dog-tooth spar calcite, zeolites, mesolite
24b	Woodworth Bay	agate, zeolites, jasper, rutile
24c	Lower Blomidon	agate, blue chalcedony, malachite, zeolites
24d	Amethyst Cove	zeolites, amethyst
24e	Scotts Bay	agate, zeolites, amethyst, rutile, mesolite
24f	Long Point	zeolites
25	Baxter Harbour	agate, zeolites, jasper
26	Halls Harbour	zeolites, amethyst
27	Harbourville	zeolites, chalcedony
28	Chipman Brook	zeolites
29	Morden	zeolites, mesolite

Annapolis County

30	Stronach Brook	zeolites, native copper, calcite
31	Margaretsville	zeolites, native copper
32	Martial's Cove	zeolites
33	Port George	zeolites, mesolite, chalcedony
34	Gate Mountain	zeolites
35	Paradise River	black tourmaline, smoky quartz
36	Port Lorne	jasper, zeolites, chalcedony, mesolite
37	St. Croix Cove	zeolites
38	Chute's Cove	zeolites, heliotrope, epidote
39	Parker Cove	blue chalcedony, jasper

Digby County

40	Deep Cove	jasper, zeolites, chalcedony
41	Nicholls Mountain	amethyst
42	Williams Brook	zeolites, quartz crystals
43	Gullivers Cove	jasper, zeolites, quartz crystals
44	Sandy Cove	agate, amethyst, zeolites, calcite, quartz crystals, jasper
45	Mink Cove	amethyst, zeolites, quartz crystals
46	Little River Cove	zeolites, jasper
47	Trout Cove	carnelian, chalcedony, zeolites, jasper
48	Brier Island	native copper, jasper

Yarmouth County

49	Brazil Lake	garnet, spodumene
50	Lake George	garnet sand
51	Chegoggin	garnet
52	East Quinan	garnet

Shelburne County

53	Port Latour	staurolite, garnet
54	Negro Harbour	staurolite, garnet
55	Round Bay/Roseway	staurolite, garnet
56	Shelburne (harbour mouth)	garnet, tourmaline, beryl, staurolite
57	Shelburne (town)	rose quartz, beryl
58	Jordan River	tourmaline, staurolite, beryl
59	Port Joli	garnet, actinolite, staurolite, sillimanite

60	Port Mouton	beryl, garnet
61	Hunts Point	beryl, garnet
62	Western Head	beryl, garnet
63	Liverpool	beryl
64	Fifteen Mile Brook	beryl
65	Whiteburn	beryl
66	Mill Village	beryl

Lunenburg County

67	Leipsigate	beryl
68	Ovens	tourmaline, calcite
69	New Ross	beryl, opal, fluorite
70	Lake Ramsay	beryl

Halifax County

71	Purcells Cove	fluorite
72	Moose River	tourmaline, mica
73	Caribou	beryl

Guysborough County

74	Cochran Hill	staurolite, garnet
75	Smithfield	calcite, quartz
76	County Harbour	garnet, zircon
77	Port Felix	garnet
78	Doughboy Point	garnet

Richmond County

79	Lennox	marcasite
80	Stirling	talc, fluorescent and crystal dolomite, calcite

Cape Breton County

81	Gabarus	malachite, fluorescent calcite
82	Eskasoni	marble
83	Coxheath	bornite, tourmaline, fluorescent calcite
84	Scotch Lake	serpentine, fluorescent calcite

Victoria County

85	Plaster Cove	barite, calcite, fluorite
86	Dingwall	howlite, ulexite, zeolites

Inverness County

87	Pleasant Bay	fluorite, garnet
88	Cheticamp	azurite
89	Port Hood	Iceland spar calcite
90	Lake Ainslie	barite, fluorite
91	Marble Mt.	Limestone, marble, calcite
92	Iona	zeolites, howlite

Antigonish County

93	Antigonish	vivianite
94	Cribben Head	calcite

Pictou County

95	Melmerby Beach	quartz

96 Caribou River malachite

Note: Many of these occurrences may only be minor showings; however, for more detailed information on the above mineral locations references are given in this publication.

Map: (Not presently available)
Mineral Collecting Localities in Nova Scotia

Back to Top

Geological History

Precambrian

In Nova Scotia the Precambrian rocks are largely concealed beneath a cover of Paleozoic and younger strata. The largest exposed areas is in the Cape Breton Highlands and another belt is confined to the eastern half of Cape Breton. These ancient rocks consists of a complex of metasediments - folded and faulted schists, gneisses, limestones and dolomites, together with complex igneous intrusions. They have been divided into two separate units known as the George River Group and the Forchu Group respectively.

Paleozoic

Cambrian:

The only area in which rocks of Cambrian age are known is in eastern Cape Breton. The oldest of these rocks are shales, sandstones and conglomerates and lie on Precambrian rocks without any apparent break and pass upward into the fossiliferous Cambrian sediments. The remainder of the Cambrian sequence in Cape Breton is divided into a number of different formations. There are several breaks in the series as indicated by the fossil content. Small stocks of granite invaded the Cambrian rocks during Devonian time and extensive folding occurred.

Ordovician:

Ordovician rocks are sedimentary but have been extensively metamorphosed by volcanic and intrusive magmas and lavas.

Rocks of the Meguma Group (Gold-Bearing Series) are believed to be Ordovician or earlier in age and extend the entire length of the mainland from Yarmouth to Canso. The Meguma Group consists of a great thickness (20,000-35,000 feet) of conformable quartzitic greywacke and slate. The entire group is remarkably lacking in fossils and its age is assessed somewhat doubtfully by the existence of Ordovician fossils in a narrow belt of rocks exposed south of Kentville. This belt is cut off from the main body of Meguma sediments by a granitic intrusion.

The Ordovician Meguma group has been closely folded into anticlines and synclines. In addition, there are some cross-folds, giving rise to a series of domes. The granitic masses that cut them are of Devonian age. Gold occurrences are numerous in the Meguma.

Silurian:

The best section of Silurian strata in Nova Scotia is at Arisaig, Antigonish County, where there are 2½ miles of good exposures of tilted and folded sediments consisting of sandstone, argillaceous sandstone, siltstone, shale and volcanic

rock. The basal Silurian beds rest unconformably on Ordovician rhyolites and tuffs. Fossils are plentiful and deposition took place in a relatively shallow sea, the floor of which subsided to accommodate the 4,000 to 5,000 feet of sediments.

Silurian fossils have also been found in shale and sandy shale in the metamorphic complex of the Cobequid Mountains.

Devonian:

Rocks of Lower Devonian age occur in Nova Scotia in the vicinity of Arisaig where over 1,000 feet of red sandy shale and sandstone carry remains of freshwater fish. Sedimentation during the Devonian was accompanied by widespread volcanism, and at the close of the epoch, extensive deformation took place known as the Acadian Orogeny. Devonian intrusive rocks, chiefly granite, occur in a broad irregular belt extending from the extreme west end of the province to Cape Canso and throughout Cape Breton Island.

Carboniferous:

Numerous areas in Nova Scotia are underlain by Carboniferous strata. These strata are the province's source of coal, oil shale, salt, limestone, dolomite, celestite, barite, gypsum and anhydrite. Rocks of the Lower Carboniferous (Mississippian) period are divided into the Horton and Windsor Groups. The Horton Group consists of continental deposits of conglomerate, sandstone and dark shale. Remains of fossil plants and buried forests occur and there are some thin localized coal seams. Fossil fish also occur and provide evidence of brackish lakes.

The Windsor Group consists of marine sediments. These include sandstone, shale, conglomerate, limestone, dolomite, gypsum, anhydrite and salt. Above the basal limestone, most of the limestones are very fossiliferous. It is within the Windsor Group that the majority of industrial minerals are mined. Total thickness of the Windsor Group varies from 1,000 feet to 10,000 feet.

The Upper Carboniferous (Pennsylvanian) rocks in Nova Scotia are continental in origin, and were laid down during a period of crustal unrest resulting in alternate rising and sinking of the land areas. They consist of rather uninteresting red and grey sandstone, conglomerate, siltstone, and shale which contain thin bands of dark carbonaceous and calcareous shale.

The coal deposits of the Pennsylvanian have long been of considerable economic importance. They were formed in the flat areas near the centres of the individual basins where river flood plains encouraged the growth of luxuriant vegetation with a swampy environment. Accumulation of great thickness of vegetable matter could only take place under rather stable conditions and then renewed tectonic activity buried the deposits under floods of sediment. The coals differ in age in the various coal basins.

Following the Carboniferous era, there was a period of erosion caused by folding and a general uplift of the land. This continued for about 55 million years or throughout the Permian era.

Mesozoic

Triassic:

The youngest consolidated rocks in Nova Scotia are of Triassic age. The Annapolis-Cornwallis Valley, and both sides of the Minas Basin, are underlain by the Annapolis Formation of sandstone, shale and conglomerate. A few fossil plants and some reptilian remains have been found. These rocks are capped by about 1,000 feet of amygdaloidal basaltic lava forming the North Mountain Upland. It is in this basalt that amethyst, copper, agate, zeolites and other "trap-rock" minerals are formed.

Cretaceous:

Stratified layers of interbedded clay, quartz sand and lignite, of Early Cretaceous age, exist in the Middle Musquodoboit-Shubenacadie area of Halifax and Hants Counties. These clays and sands are overlying rocks of the Windsor Group and are covered by Pleistocene boulder clay. Economically the clays are kaolinitic, grading from low duty to high duty refractory materials, while the quality of the sands varies from 80 per cent to a high of 98 per cent silica.

Cenozoic

Pleistocene

The final event in the story of the geology of Nova Scotia was the glaciation which deposited a thick mantle of bouldery clay that hides from view most of the bedrock beneath. Other features that indicate the work of the ice are drumlins and eskers. The edge of the ice sheet extended beyond the eastern shoreline of Nova Scotia and the moving ice scoured the rock surface over which it moved, plucking and grinding the rocks beneath it. Such grooved and striated surfaces are often exposed and they show that the ice came primarily from the northwest. The ice withdrew from Nova Scotia only about 8,000 years ago.

Back to Top

Map: (Not presently available)
Generalized Geological Map of Nova Scotia

Back to Top

Methods of Formation of Some Major Commodities of Nova Scotia

Coal

Approximately 300 million years ago during the Pennsylvanian Period swamps existed over areas that are now known for their coal deposits - Springhill, Pictou, western Inverness County and Sydney. As these areas became covered with rock debris from surrounding highlands, the ferns and trees and vegetation were buried. With millions of years of rock piled on top of these swamps, the heat and pressure caused the vegetation to turn into the black carbonaceous substance known as coal. With changes in the land form the rock hard coal was eventually exposed on the surface and man was able to mine coal and use it as a fuel.

Evaporites - Limestone, Gypsum, Salt

The abundance of these rock types exist in Nova Scotia because during the Mississippian period, over 300 million years ago, large areas of land were drying up and producing restricted basins, or arms of the sea that were cut off from regular water circulation. As these basins evaporated the water precipitated out its various chemical components. A sequence of rocks is deposited in this way starting with limestones then gypsum and anhydrite, and finally depositing salt. These sediments were buried and consolidated and eventually exposed to the surface by erosion and other methods of land formation.

Metallic and Non-Metallic Minerals

When melted rock from the centre of the earth, known as magma, pushes to the surface, it will heat the surrounding rocks already present. These rocks can change or metamorphose in many ways due to the heat and pressure caused by the rock moving up. Elements may become rearranged and form new minerals. This changing process is known as metamorphic alteration.

Heated water accompanying the magma can also change the pre-existing country rocks. This water is often rich in elements such as gold, copper, molybdenum etc., as these heavy metals are more concentrated in the centre of the earth than on the surface. When it eventually evaporates, the heavy metals are left behind in hydrothermal deposits.

The outside of the magma body cools more quickly while the inside remains hotter. If this liquid rock "spurts" into a crack in the country rock, it can form a vein or sheet of igneous material such as quartz or granite. This is known as metathermal injection.

The precious native metals such as copper and gold that are found in Nova Scotia are produced by a hydrothermal deposition and metathermal injection. Native metals are usually very pure and wiry of "chunky." Quartz injected into cracks between the bedding planes of folded Ordovician slates had a high percentage of liquid gold from deep in the earth. Cooling hardened the solutions and millions of years later these quartz veins were mined for gold.

Superheated water moving in the iron-rich Triassic lavas of the Bay of Fundy carried high concentrations of copper, silica, and other elements. This water fills "air bubbles" or cavities and native copper, agate, amethyst, zeolites, chalcedony, and other semi-precious minerals are formed.

Hydrothermal alteration is also known as replacement. Water circulating through a deposit or formation may introduce new elements while dissolving and removing existing elements. Gradually the pre-existing rock will change. In many cases the water is laden with sulfur particles which attack and replace the county rock. The minerals barite and celestite are formed in this manner.

Back to Top

Gold Production in Nova Scotia

No.	Gold District	Dates	Production (fine oz.) (to 1976)	Tons Rock Crushed (to 1936)
1	Ardoise	1890-1906	7	63
2	Beaver Dam	1889-1936	966	3,071
3	Blockhouse	1896-1936	3,588	1,981
4	Brookfield	1887-1938	43,041	105,395
5	Caribou	1869-1945	91,381	94,818
6	Carleton	1897-1915	190	471
7	Central Rawdon	1888-1939	6,744	5,222
8	Chegoggin	1883	No figures available	
9	Chezzetcook	1889-1914	7	80
10	Clam Harbour	1901-1904	53	57
11	Cochran Hill	1888-1928	1,192	11,649
12	Country Harbour	1871-1951	9,959	27,447
13	Cow Bay	1896-1936	1,333	1,453
14	Cranberry Head	1875-1900	118	193
15	East Rawdon	1884-1900	13,494	14,788
16	Ecum Secum	1889-1915	1,275	2983
17	Elmsdale	1890	1	10

18	Fifteen Mile Brook	1901-1934	880	2,776
19	Fifteen Mile Stream	1883-1911	19,740	46,731
20	Forest Hill	1895-1935	25,102	54,002
21	Gays River	1873-1901	2,137	15,085
22	Goldenville	1862-1942	210,152	448,428
23	Gold River	1889-1939	6,499	10,622
24	Harrigan Cove	1889-1916	7,946	13,778
25	Isaac's Harbour	1862-1940	39,654	47,878
26	Kemptville	1888-1937	1,851	3,062
27	Killag	1889-1933	3,504	2,874
28	Lake Catcha	1887-1942	17,951	25,381
29	Lake Charlotte	1936-1973	126	
30	Lawrencetown	1862-1912	867	1,691
31	Leipsigate	1888-1942	17,951	25,381
32	Little Liscomb Lake	1893-1895	50	95
33	Lochaber	1883	2	5
34	Lower Caledonia		No figures available	
35	Lower Seal Harbour	1894-1942	34,295	41,696
36	McKay Settlement	1904-1909	13	75
37	Mill Village	1901-1935	909	1,222
38	Miller Lake	1904-1934	538	451
39	Molega	1888-1950	34,876	33,735
40	Montague	1863-1938	68,139	67,469
41	Moosehead	1899-1937	470	3,340
42	Mooseland	1872-1911	3,865	9,058
43	Moose River	1870-1937	25,984	149,798
44	Mount Uniacke	1867-1941	27,739	59,236
45	Oldham	1862-1938	85,295	66,302
46	Ovens	1862-1936	543	353
47	Pleasant River Barrens	1890-1913	112	511
48	Renfrew	1862-1939	51,965	65,968
49	Salmon River	1881-1942	41,631	118,040
50	Scraggy Lake	1890-1899	38	-
51	South Uniacke	1888-1946	20,762	11,722
52	Tangier	1862-1919	26,078	49,085
53	Upper Seal Harbour	1893-1944	57,027	431,018
54	Voglers Cove	1905	43	200
55	Wagmatcook (Middle River)	1907-1916	1,440	6,724
56	Waverley	1862-1938	73,353	161,876
57	West Caledonia	1925	2	-
58	Westfield		No figures available	
59	West Gore	1905-1917	7,748	4,959
60	Whiteburn	1887-1941	11,890	8,140
61	Wine Harbour	1862-1939	42,726	79,822
62	Gegogan	1914	No figures available	
63	Sheet Harbour	1898-1935	3	8
64	Ship Harbour	1935-1936	1	29
65	Stanburne	1933-1936	12	85
Total Production			1,139,390	2,348,741

Back to Top

Coal Production in Nova Scotia (to 1975)

Coalfield	County	Production	Number of Mines
Sydney	Cape Breton & Victoria	354,411,134	87
Glengarry	Richmond	3,210	1
Pictou	Pictou	5,754,746	33
River Hebert	Cumberland	1,784,777	19
Joggins	Cumberland	7,869,713	22
Springhill	Cumberland	60,983,020	14
Mabou	Inverness	69,674	2
Chimney Corner/St. Rose	Inverness	774,214	3
Port Hood	Inverness	1,068,936	2
Inverness	Inverness	6,492,091	18
Richmond	Richmond	4,878	3
Kemptown	Colchester	367,490	2
Debert	Colchester	191	1

Back to Top

Map: (Not presently available)
Gold Districts and Coal Fields in Nova Scotia

Back to Top

Nova Scotia Commodity Production Totals by Area

Only Production Totals of over 5,000 tons are shown for Industrial Minerals and Construction Materials with the exception of Diatomite (over 1,000 tons) and Stone/Gravel (over 100,00 tons). All known production is given for Metallic Minerals.

Locality	County	Operating Dates	Production
INDUSTRIAL MINERALS			
Gypsum			
Wentworth Creek/Windsor	Hants	1876-1975	55,285,122
Milford Station	Hants	1966-1975	19,139,637
Dingwall	Victoria	1933-1955	9,855,623
Little Narrows	Inverness	1936-1975	7,357,041
Walton	Hants	1867-1966	4,513,300
Cheticamp	Inverness	1935-1940	3,319,166
Cheverie	Hants	1867-1967	1,093,314
Eastern Harbour	Cape Breton	1922-1933	861,834
River Denys	Inverness	1975	540,320
Ottawa Brook	Victoria	1912-1927	292,900
MacKay Settlement	Hants	1948-1975	260,393
Avondale	Hants	1912-1922	238,373
Ingonish	Victoria	1926-1929	225,034
Mabou Harbour	Inverness	1876-1933	205,166
St. Ann's	Victoria	1884-1916	146,170
Newport Station	Hants	1912-1928	128,196
Baddeck	Victoria	1876-1927	96,966
Iona	Victoria	1914-1921	93,608
Nappan	Cumberland	1912-1913	54,302

Hantsport	Hants	1876-1884	27,793
Belle Marche	Inverness	1912-1913	13,604
Arichat	Richmond	1884-1894	11,884
South Maitland	Hants	1876-1879	9,935
Anhydrite			
River Denys	Inverness	1961-1974	7,621,763
Wentworth	Hants	1961-1974	2,550,122
Little Narrows	Inverness	1961-1974	683,189
Walton	Hants	1959-1971	384,173
Salt			
Pugwash	Cumberland	1959-1975	6,551,225
Malagash	Cumberland	1921-1959	1,456,124
Amherst	Cumberland	1947-1963	1,158,553
Nappan	Cumberland	1964-1975	1,053,029
Limestone			
Brookfield	Colchester	1873-1975	3,467,018
Irish Cove	Richmond	1963-1975	1,503,014
East River	Lunenburg	1938-1963	125,626
Antigonish	Antigonish	1969-1975	100,585
Windsor	Hants	1922-1946	82,311
Londonderry	Colchester	1877-1896	75,361
Marble Mountain	Inverness	1889-1974	44,759
Liverpool	Queens	1930-1936	36,605
Ferrona	Pictou	1873-1895	29,501
St. Peters	Richmond	1883-1892	23,933
Pugwash	Cumberland	1887-1934	14,907
Bridgeville	Pictou	1885	14,594
Ferry Farm	Hants	1947-1948	14,260
Arichat	Richmond	1889-1896	6,136
Dolomite			
Frenchvale	Cape Breton	1964-1975	905,553
Upper Musquodoboit	Halifax	1948-1970	688,802
George River	Cape Breton	1913-1945	682,469
Scotch Lake	Cape Breton	1946-1951	113,352
Marble			
Marble Mountain	Inverness	1895-1921	2,769,527
Barite			
Walton	Hants	1941-1974	4,577,385
East Lake Ainslie	Inverness	1897-1918	5,762
Scotsville	Inverness	1912-1916	4,970
Fluorite			
East Lake Ainslie	Inverness	1920-1968	6,732
Celestite			
Enon	Cape Breton	1971-1975	759,345
Diatomite			

East New Annan	Cumberland	1931-1940	7,978
Little River	Digby	1930-1952	2,975
Oxford	Cumberland	1928-1940	1,936
Peat			
Berwick	Kings	1951-1974	52,352
CONSTRUCTION MATERIALS			
Granite			
Porcupine/Canso Causeway	Guysborough	1953-1954	9,443,000
Nictaux West	Annapolis	1900-1975	19,421
Halifax	Halifax	1951-1962	19,415
Shelburne	Shelburne	1927-1968	4,458
Quartzite			
South Branch	Colchester	1969	34,000
Lake Echo	Halifax	1948-1967	17,779
Ostrea Lake	Halifax	1960-1963	2,315
Belmont	Colchester	1960-1961	1,052
Sand/Stone/Gravel			
Bedford	Halifax	1945-1975	9,323,376
Sandy Desert	Hants	1951-1975	4,017,625
Montague	Halifax	1970-1975	2,940,788
Dartmouth	Halifax	1960-1968	2,455,664
Lawrencetown	Halifax	1956-1965	1,774,059
Shubenacadie	Hants	1973-1974	1,126,822
Kearney Lake	Halifax	1963-1975	1,003,000
Lower Sackville	Halifax	1962-1966	636,733
Fairview	Halifax	1925-1946	553,142
Georgeville	Antigonish	1960-1961	380,000
Bridgewater	Lunenburg	1969	302,110
Cook Brook	Halifax	1962-1967	294,002
Centrelea	Lunenburg	1967-1971	188,908
Glace Bay	Cape Breton	1947-1948	188,900
Total other areas		1935-1968	2,101,397
Sandstone/Grindstone			
Wallace	Cumberland	1876-1975	770,223
Joggins	Cumberland	1876-1919	31,993
Antigonish	Antigonish	1912-1946	13,173
North Grant	Antigonish	1947-1960	8,894
Woodburn	Pictou	1916-1940	3,897
Merigomish	Pictou	1877-1936	3,568
Silica			
Leitches Creek	Cape Breton	1921-1947	162,868
Chegoggin	Yarmouth	1946-1963	95,382
Elderbank	Halifax	1966-1970	6,259
Clay/Bricks			
Shubenacadie	Hants	1960-1975	212,333
Milford	Hants	1960-1975	139,344

Avonport	Kings	1920-1931	67,288 (Bricks - 6,665,073)
Pugwash	Cumberland	1920-1926	12,570 (Bricks - 16,969,030)

METALLIC MINERALS

Copper			
Stirling	Richmond	1906-1956	178,352
Coxheath	Cape Breton	1884-1886	1,920
Walton	Hants	1962-1969	1,857
Polson Lake/Copper Lake	Antigonish	1908-1909	1,400
Ohio	Antigonish	1884	1,120
Pictou	Pictou	1900	650
Waugh's River	Colchester	1908	240
Lead			
Caledonia	Guysborough	1876-1906	27,771
Walton	Hants	1962-1969	15,386
Stirling	Richmond	1906-1956	8,368
Rawdon	Hants	1884-1906	3,928
Smithfield	Colchester	1884	100
Zinc			
Stirling	Richmond	1906-1956	35,901
Walton	Hants	1962-1969	3,576
Silver (oz.)			
Walton	Hants	1962-1969	3,475,757
Iron			
Londonderry	Colchester	1876-1908	773,342
Torbrook	Annapolis	1890-1911	292,246
New Glasgow	Pictou	1891-1896	128,779
Pictou	Pictou	1895-1906	54,945
Pugwash	Cumberland	1891-1894	20,928
Ferrona	Pictou	1896	13,327
Bridgeville	Pictou	1885-1903	8,840
Brookfield	Colchester	1888-1907	8,509
Manganese			
Tennycape	Hants	1876-1905	1,856
New Ross	Lunenburg	1912-1921	1,258
Cornwallis	Annapolis	1886-1887	635
Tungsten			
Moose River	Halifax	1910-1918	389
Antimony			
West Gore	Hants	1910-1917	1,725
Tin			
New Ross	Lunenburg	1907	4,200

Back to Top

Map: (Not presently available)
Present & Past Producing Mines & Quarries in Nova Scotia

Back to Top

Total Production* of Minerals in Nova Scotia (to 1975)

Gold (oz.)	1,139390
Silver (oz.)	3,475,757
Coal	909,442,011
Gypsum	105,137,356
Sand/Gravel	31,485,872
Anhydrite	11,239,247
Granite	9,489,778
Salt	9,175,231
Limestone	8,585,397
Barite	4,591,600
Marble	2,769,527
Dolomite	2,370,623
Iron	1,340,686
Clay	957,085
Sandstone/Grindstone	831,748
Celestite	759,345
Silica	264,477
Copper	185,565
Quartzite	59,011
Peat	52,352
Lead	51,620
Zinc	39,477
Diatomite	13,824
Fluorite	6,732
Antimony	5,653
Manganese	4,944
Tin	4,200
Tungsten	389

*All minerals except Gold and Silver are in Tons.

Back to Top

General Information

The following are addresses of agencies from which more information relating to rocks and minerals in Nova Scotia may be obtained.

Nova Scotia Department of Natural Resources Library
(formerly Department of Mines)
Third Floor, Founders Square
1701 Hollis Street, P. O. Box 698
Halifax, Nova Scotia
B3J 2T9

Telephone: 902-424-8633
FAX: 902-424-7735
nsdnrlib@gov.ns.ca

Geological Survey of Canada
601 Booth Street, Ottawa, Ontario.

Nova Scotia Museum
1747 Summer Street, Halifax, Nova Scotia.

Nova Scotia Mineral and Gem Society
c/o Nova Scotia Museum
1747 Summer Street, Halifax, Nova Scotia.

Attractions of interest regarding mining and geology in Nova Scotia.

Nova Scotia Museum, Halifax
Springhill Minerals Museum (Coal) Mine Tour
Cape Breton Miners Museum (Coal), Glace Bay.
Princess Mine (Coal), Sydney Mines, Mine Tour.
Old French Mine (Coal), Port Morien, Mine Tour.
Stellarton Mining Museum.
Geological, Mining and Gem Museum, Parrsboro.
Colchester Historical Museum, Truro.
Marble Mountain Library and Museum, Inverness County.
Rock and Mineral Collections at Nova Scotia universities.
Annual "Rock Hound Round-up", Parrsboro, in August.

Back to Top

References

Nova Scotia Department of Natural Resources (formerly Department of Mines):

A Brief History of Mining and Geology in Nova Scotia, 1975.
Annual Reports on Mines, 1861-1975.
Mineral and Geological Guidebook, 1954.*

Geological Survey of Canada:

Rocks and Minerals for the Collector; Bay of Fundy Area, by Ann P. Sabina, Geological Survey of Canada Paper 64-10, 1964.

Rocks and Minerals for the Collector; Northeastern Nova Scotia, Cape Breton and Prince Edward Island, by Ann P. Sabina, Geological Survey of Canada Paper 65-10, 1965.

Rock and Mineral Collecting in Canada, Volume III - New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland, by Ann P. Sabina, Geological Survey of Canada Miscellaneous Report 8, 1965.

Gold Fields of Nova Scotia, by W. Malcolm, Geological Survey of Canada Memoir 385, 1976 (3rd Edition).

Physiography of Nova Scotia by J. W. Goldthwait, Geological Survey of Canada, Memoir 140, 1924.*

The above publications are a small selection of references and will give more detailed information on rocks and minerals in Nova Scotia. The references marked with an asterisk (*) are now out of print. but many libraries would have them. The other publications can be obtained from the respective agency as listed.

Back to Top

GOV'T. INDEX

The contents of this site are best viewed with an enhanced browser such as Microsoft® Internet Explorer® or Netscape® Navigator®.

Comments and questions about this web site.
This page and all contents are copyright 2001-2005
Mineral Resources Branch,
Department of Natural Resources,
Province of Nova Scotia,
all rights reserved.
Page last updated June 3, 2005.

Privacy Policy: http://gov.ns.ca/govt/privacy/privacypolicy.HTM